



ERC-funded Postdoc and Ph.D. position in molecular biology

About the Project: The successful candidate will join the **Andergassen lab** at the Institute of Pharmacology and Toxicology, Technical University of Munich (TUM). The lab bridges computational (allele-specific epi-genomics) and experimental strategies (high-throughput bulk/single cell sequencing, viral vectors, CRISPR in vivo editing) to understand the molecular mechanism behind sex differences observed in heart failure. A particular focus will be on genes that escape X-chromosome inactivation in females, resulting in higher gene dosage compared to males, an understudied epigenetic phenomenon that has so far not been linked to sex bias in heart failure. This basic project will deepen our understanding of the molecular mechanisms underlying the sex bias in heart failure and aims to develop RNA-based therapies for sex-specific treatments. More information about the lab: www.andergassenlab.com and [here](#)

About the institute: The Institute of Pharmacology and Toxicology (IPT) is part of the Medical Faculty of the Technical University of Munich (TUM), one of the leading universities in the European Union. The institute's research focuses on non-coding RNAs, their control of cardiac gene expression, and the effects of their therapeutic manipulation in cardiac disease. The institute's state-of-the-art research facility includes a fully equipped mouse cardiac phenotyping lab, a viral vector core, and the entire experimental pipeline for next-generation sequencing from tissue or single-cells, including FACS-based cell separation. Furthermore, the IPT coordinates and receives funding from the DFG Collaborative Research Center [TRR267](#) "Non-coding RNA in the Cardiovascular System" and is the Munich partner site of the German Center for Cardiovascular Research (DZHK). More information: www.ipt.med.tum.de

Your profile

- Ph.D. in molecular biology, ideally with a computational background (for PostDoc applicants)
- You must have at least one first-author publication (for PostDoc applicants)
- You hold a master's in molecular biology and have a computational background (for Ph.D. applicants)
- Solid wet-lab experience and experience in library preparation for next-generation sequencing
- Experience working in a Linux/Unix environment and R programming
- Written and oral communication skills in English
- Highly motivated scientist and commitment to scientific excellence

We offer

- 3-year contract with option to extend (payment according to TV-L E13)
- State-of-the-art facility in house
- Access to the Leibniz-Rechenzentrum (LRZ)
- A highly motivated and international institute with a high PostDoc to student ratio
- Membership in the TUM Graduate School and benefit from educational programs

Your application: The TUM aims to increase the diversity of its staff substantially. As an equal opportunity and affirmative action employer, the TUM explicitly encourages nominations of and applications from women and all others who would bring additional diversity dimensions to the university's research and teaching strategies. The position is suitable for people with disabilities. Applications from people with disabilities with essentially the same qualifications will be given preference. Please send your complete application documents (**cover letter, C.V., certificates**) via email to:

Daniel Andergassen Ph.D.

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Notes on data protection:

As part of your application for a position at the Technical University of Munich (TUM), you submit personal data. Please note our privacy policy in accordance with Art. 13 General Data Protection Regulation (DSGVO) <http://go.tum.de/554159> for the collection and processing of personal data in the context of your application. By submitting your application, you confirm that you have read the data protection notices of TUM.